

**ABSTRACT OF THE INVENTION**

The encryption/decryption device of the present invention comprises a first encryption/decryption table, and electrically connects a host with a second encryption/decryption table. The content of the first and the  
5 second encryption/decryption table comprises a station identifier field, an encryption/decryption algorithm identifier field and a key field for encrypting/decrypting the frames transmitted from or to the station. The encryption/decryption device comprises a data receiving unit, a data transmitting unit, a hardware encryption/decryption unit, a first checking  
10 unit and a second checking unit. The hardware encryption/decryption unit will encrypt/decrypt a frame if it can do so, or the encryption/decryption of the frame will be performed by the host.